

ATTACHMENT 1

Enclosure #2 to
TS-164646
Copy 1 of 5

TECHNICAL CHARACTERISTICS OF USSR RADARS

1. The attached publication "Soviet Ground and Airborne Radar" (ATIC-TIS-EL-56-4) dated 31 December 1956, gives some technical characteristics of Soviet radars. ATIC's "Handbook of Soviet and Satellite Land-Based Radars" and the Signal Corps publication "Soviet Land-Based Radars" gives additional technical data and can be supplied if needed. By combining the above three publications one can find the data necessary for calculation of intercept range of a Soviet radar. We like to calculate our own. However, the curves in the attached publication may be of interest.

2. It is my judgement that KNIFEREST, DUMBO, TOKEN and CROSSFORK will all easily intercept our vehicle. The lobe patterns of ATIC's "Handbook of Soviet and Satellite Land-Based Radars" (not attached) are presented in such a way as to deceive the average reader leaving an impression that the radar's range is much less than it really is. This publication has led to much of the misinformation in the community that TOKENS and other radars have short ranges and low altitude coverage. The 31 December 1956 publication "Soviet Ground and Airborne Radar" (attached) does much to rectify this misrepresentation. Without going into detail in this paper, I believe the 31 December 1956 paper of ATIC proves that our vehicle will be intercepted by DUMBO, KNIFE-REST, TOKEN and CROSSFORK.

3. It may be of value to you to be reminded that the British say that many TOKENS have seven frequencies. Although the U.S. does not admit this because they have not detected the seven frequencies, one must remember that the British are usually correct in the field of ELINT. The extra two beams would be expected to give even better coverage of the higher altitudes than shown in the attached publication.